



Nishi

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[54] **PROJECTION EXPOSURE APPARATUS**

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[30] **Foreign Application Priority Data**

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G03B 27/50

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[58] **Field of Search** 355/50, 51, 53,
355/55

[56] **References Cited**

U.S. PATENT DOCUMENTS

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34 Claims, 13 Drawing Sheets

[57] **ABSTRACT**

Constant speed drive of a reticle and a wafer in a relative scanning direction and positioning of the reticle and the wafer are simultaneously performed with high precision by a slit scanning exposure scheme. A reticle side scanning stage for scanning a reticle relative to a slit-like illumination area in the relative scanning direction is placed on a reticle side base. A reticle side fine adjustment stage for moving and rotating the reticle within a two-dimensional plane is placed on the reticle side scanning stage. The reticle is placed on the reticle side fine adjustment stage. Constant speed drive and positioning of the reticle and a wafer are performed by independently controlling the reticle side scanning stage and the reticle side fine adjustment stage.

